

Application No.: 10/810399
Docket No.: CH2975USNA

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Amendments to Specification

At page 4, lines 13-16, replace the paragraph with the following:

Examples of commercially available organic titanium compounds include, but are not limited to, TYZOR® TPT organic titanate and TYZOR® TBT organic titanate (tetra isopropyl titanate and tetra n-butyl titanate, respectively) available from E. I. du Pont de Nemours and Company, Wilmington, Delaware, USA (DuPont).

At page 4, lines 23-30, replace the paragraph with the following:

A titanium chelate can comprise or be produced from a tetraalkyl titanate and a complexing agent. Titanium chelate can be produced by any methods known to one skilled in the art or is commercially available. Examples of commercially available titanium chelate include those available from DuPont such as, for example, TYZOR® LA organic titanate (titanium bis-ammonium lactate), TYZOR® AA organic titanate (bis-acetylacetone titanate), TYZOR® DC organic titanate (bis-ethyl acetoacetate titanate), TYZOR® TE organic titanate (bis-triethanolamine titanate), or combinations of two or more thereof.

At page 5, lines 16-23, replace the paragraph with the following:

The zirconium compound useful as stabilizer can be an organic zirconium compound $Zr(OR)_4$, or a zirconium chelate comprising or produced from $Zr(OR)_4$ and a complexing agent, or both where each R is the same as that disclosed above. Zirconium compound $Zr(OR)_4$ and complexing agents include those disclosed above. Examples of zirconium compound include those commercially available from DuPont such as, for example, tetrapropyl zirconate (TYZOR® NPZ organic titanate), tetrabutyl zirconate in butanol (TYZOR® NBZ organic titanate), tetrakis(triethanolamino) zirconate (TYZOR® TEAZ organic titanate), or combinations of two or more thereof.

At page 10, lines 26-28, replace the paragraph with the following:

The following Examples are provided to further illustrate the present invention and are not to be construed as to unduly limit the scope of the invention. All TYZOR® organic titanate products were obtained from DuPont disclosed above.

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At page 10, line 30, bridging to page 11, line 3, replace the paragraph with the following:

Commercial samples used were tetrabutyl titanate (TYZOR® TnBT organic titanate), tetraisopropyl titanate (TYZOR® TPT organic titanate), bis(triethanolamino) titanate in isopropanol (TYZOR® TE organic titanate), tetrapropyl zirconate (TYZOR® NPZ organic titanate), tetrabutyl zirconate in butanol (TYZOR® NBZ organic titanate), and tetrakis(triethanolamino) zirconate (TYZOR® TEAZ organic titanate). Other additive compositions were prepared as follows.

At page 11, lines 5-7, replace the paragraph with the following:

Additive compositions were prepared by mixing either 1,4-butanediol (BDO) or TYZOR® TE organic titanate with a phosphorus compound as specified in Table 1. Each mixture was blended for 10-15 minutes at room temperature.

At page 11, lines 5-7, replace Table 1 with the following:

Additive Designation	Base Component	Component Mass, g	Phosphorus Compound	P Compound Mass, g
TBP in BDO	BDO	247.5	tributyl phosphate	2.5
TE-TBP 6	TYZOR® TE <u>organic titanate</u>	100.0	tributyl phosphate	6.7
TE-TBP-13	TYZOR® TE <u>organic titanate</u>	50.0	tributyl phosphate	6.7
TE-TEP	TYZOR® TE <u>organic titanate</u>	50.0	triethyl phosphate	2.2
TE-TIP	TYZOR® TE <u>organic titanate</u>	50.0	triisopropyl phosphate	2.8

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At page 13, replace Table 2 with the following:

Run	Additive/Catalyst ¹	Additive Mass, g	[M], ppm ²	[stabilizer], ppm ³	COO H ⁴	Color Index ⁶	THF Yield, g ⁵
1	MBTO in BDO ¹	21.9	2326	---	131	2	4
2	TYZOR [®] TnBT <u>organic titanate</u>	1.9	559	---	610	2	15
3	TYZOR [®] TPT <u>organic titanate</u>	1.4	907	---	495	1	15
4	TYZOR [®] NBZ <u>organic titanate</u>	2.7	2501	---	600	1	52
5	TYZOR [®] TE <u>organic titanate</u>	3.4	934	---	187	5	3
6	TYZOR [®] TE <u>organic titanate</u> (repeat)	3.5	934	---	278	4	5
7	TYZOR [®] TE <u>organic titanate</u> TBP in BDO	3.5 24.7	934 24.7	100	240	2	8
8	TE-TBP-6	3.7	934	94	252	1	7
9	TE-TBP-13	3.9	934	189	371	1	8
10	TE-TEP	3.9	1000	102	358	3	6
11	TE-TIP	3.9	1000	102	352	3	6
12	TYZOR [®] TE <u>organic titanate</u> TYZOR [®] NPZ <u>organic titanate</u>	3.5 0.7	939	459	258	5	6
13	TYZOR [®] TE <u>organic titanate</u> TYZOR [®] TEAZ <u>organic titanate</u>	3.5 1.0	938 436		249	2	5
14	TYZOR [®] TE <u>organic titanate</u> TYZOR [®] TEAZ <u>organic titanate</u>	3.4 0.85	912 371		172	3	6
15	TYZOR [®] TE <u>organic titanate</u> TYZOR [®] TEAZ <u>organic titanate</u>	3.5 0.25	940 109		349	3	7

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At page 21, lines 3-11, replace the paragraph with the following:

A catalyst composition is discloses which comprises or is produced from a stabilizer, optionally a solvent and a titanium compound and a complexing agent or a titanium chelate wherein the stabilizer is a phosphorus-containing ester containing no free P-OH groups or a zirconium chelate and said complexing agent is an alkanolamine. Also disclosed is a process for producing polybutylene terephthalate comprises contacting terephthalic acid or its salt or its ester and butylenes glycol, in the presence of ~~said~~ catalyst composition, which comprises, or is produced from, ~~titanium or a titanium compound, a complexing agent, a phosphorus-containing ester, and optionally a solvent~~. The process can also comprise contacting terephthalic acid or its salt or its ester and a glycol, in the presence of a catalyst composition to produce an oligomer and contacting the oligomer with a phosphorus-containing ester in which the catalyst composition can be one that catalyzes esterification or transesterification or polycondensation.